

8. **An Experimental Study of a Construction Management Method
Involving Direct Floor Finish on Concrete Slab
- Research on Concrete Construction Processes and Properties of Fresh Concrete -**

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In order to study the construction management method for the prevention of peeling on the surface of direct finished concrete slab, the generation of bleeding water and hardened state of concrete surface were measured. We also investigated the trowel finishing process and inspected the finished concrete status, confirming that machine trowel finishing with a blade when 90% of the bleeding water had evaporated did not lead to delamination. The state of the concrete when 90% of the bleeding water had evaporated corresponded to a penetration resistance value of 1.5 N/mm² or more, as obtained with a Proctor penetration test

Based on these results, the authors propose that the trowel finishing with a blade should begin at the point at which the penetration resistance value reaches 2.0 N/mm². This value incorporates a margin of error and uncertainties in the measured data.

Key words: concrete, direct floor finish, bleeding, penetration resistance